

Amendment After Final Rejection  
Serial No. 09/912.132

US010341

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**IN THE CLAIMS:**

**Kindly replace the claims of record with the following full set of claims:**

1. (Currently amended) A method for decoding a video bitstream at a first resolution, comprising the steps of:
  - producing residual error frames at a second ~~lower~~ resolution by performing an inverse discrete transformation on a pixel block of a known size and sampling the signal at a predetermined rate to obtain a second resolution lower than said first resolution;
  - producing motion compensated frames at the second lower resolution;
  - combing the residual error frames with the motion compensated frames to produce video frames; and
  - up-scaling the video frames to the first resolution, wherein the up-scaling is performed by a technique of repeating pixel values.
2. (Original) The method of claim 1, wherein the producing residual error frames includes performing an 8X8 inverse discrete transform to produce pixel values.
3. (Cancelled)
4. (Original) The method of claim 1, wherein the producing residual error frames includes performing a 4X4 inverse discrete transform.
5. (Original) The method of claim 1, wherein the producing motion compensated frames includes scaling down motion vectors by a predetermined factor to produce scaled motion vectors.
6. (Original) The method of claim 1, wherein motion compensation is performed based on the scaled motion vectors.

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7. (Cancelled)

8. (Original) The method of claim 1, wherein the up-scaling is performed in a horizontal direction.

9. (Original) The method of claim 1, wherein the up-scaling is performed in a same direction as down scaling in the residual error frames.

10. (Currently amended) A readable memory medium for storing code for decoding a video bitstream at a first resolution, the readable memory medium when loaded into a processing system causes the processing system to execute the steps of: comprising:  
    ~~a code for~~ producing residual error frames at a second lower resolution by performing an inverse discrete transformation on a pixel block of a known ~~known~~ size and sampling the signal at a predetermined rate to obtain ~~[[a]]~~ the second resolution lower than said first resolution;  
    ~~a code for~~ producing motion compensated frames at the second lower resolution;  
    ~~a code for~~ combining the residual error frames with the motion compensated frames to produce video frames; and  
    ~~a code for~~ up-scaling the video frames to the first resolution, wherein the up-scaling is performed by a technique of repeating pixel values.

11. (Currently amended) An apparatus for decoding a video bitstream at a first resolution, comprising:  
    means for producing residual error frames at a second lower resolution by performing an inverse discrete transformation on a pixel block of a known size and sampling the signal at a predetermined rate to obtain a second resolution lower than said first resolution;  
    means for producing motion compensated frames at the second lower resolution;  
    means for combining the residual error frames with the motion compensated frames to produce video frames; and

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means for up-scaling the video frames to the first resolution, wherein the up-scaling is performed by a technique of repeating pixel values.

12. (Currently amended) An apparatus for decoding a video bitstream at a first resolution, comprising:

a first path for producing residual error frames at a second ~~lower~~ resolution by performing an inverse discrete transformation on a pixel block of a known size and sampling the signal at a predetermined rate to obtain a second resolution lower than said first resolution;

a second path for producing motion compensated frames at the second ~~lower~~ resolution;

an adder for combining the residual error frames with the motion compensated frames to produce video frames; and

an up-scaler increasing the video frames from the second resolution to the first resolution, wherein the up-scaling is performed by a technique of repeating pixel values.

13. (Cancelled)